

REMARKS

In the Amendment submitted in the present case on November 28, 2007, Applicants pointed out that the Kerins patent (US 6,638,603) discloses an article having a discontinuously hydrophobic surface. Kerins describes the prior art hydrophobic surface as follows:

The present invention is directed to a novel process of making coated water-sensitive films. Hydrophobic polymers are coated in a discrete pattern of dots on a water-sensitive film using a hot-melt screen printing technique. The coating provides the film with protection from damage by water when the film is brought into contact with water on the coated side. The degree of protection can be controlled by varying the distance between dots. Maximum protection is achieved when the dots touch each other; however, in some applications such as flushable articles, care must be taken to insure that the coating disperses sufficiently so as to not cause clogging during the flushing process of a conventional toilet.

Column 2, lines 43-55 of Kerins.

It is an explicit requirement of the presently claimed process that the coated textile sheet has a self-cleaning surface comprising hydrophobic particles on its entire surface (see present Claim 1).

In the Response to Arguments section of the Office Action of February 21, 2008, the Office states:

Applicant argues that the teaching by Kerins et al. in view of Keller et al. do not teach producing a textile with a self-cleaning surface comprising hydrophobic particles on the entire surface of the textile sheet. Kerins et al. disclose providing water protection to a surface, by applying hydrophobic particles in a dot pattern. However, to provide maximum protection, the dots are so close that they touch each other or are interengaged, thus the dot pattern shows some continuity over the entire surface (column 2, lines 50-51; column 5, lines 7-10; column 6, lines 24-38).

See section no. 8 in the February 21 Office Action in the present application.

It appears that the Office is of the opinion that because dots of the prior art hydrophobic surface may touch each other, that the Kerins hydrophobic surface is entirely covered by the hydrophobic surface. Applicants submit that a hydrophobic surface made by applying dots of a hydrophobic material where the dots touch each other to form a discontinuous hydrophobic surface, cannot conceivably entirely cover a surface. Thus, Kerins discloses a surface that must be different from the presently claimed surface; namely, the hydrophobic surface of Kerins is discontinuous whereas the presently claimed invention provides a textile whose entire surface is coated with a hydrophobic surface.

The Office also cited to column 5, lines 7-10 and column 6, lines 24-38 of Kerins as support that the prior art “dot”-based coating is the same as a coating that entirely covers a surface. The text of the Kerins patents cited by the Office in support of the rejection is reproduced below for convenience.

The hydrophobic polymer may be coated directly under the water-sensitive film or onto the carrier substrate and subsequently transferred to the water-sensitive film in the form of a plurality of dots. The dots may have any shape desired. Suitable shapes include, but are not limited to, circles, squares, rectangles, triangles, and hexagons. Desirably, the dot shape allows uniform coverage of the film and minimal spacing between adjacent dots. More desirably, the dots are present as substantially discontinuous interengaged shapes of hydrophobic polymeric material, resembling pieces of a jigsaw puzzle, adhered to and uniformly covering the water-sensitive film surface. As used herein, the phrase “substantially discontinuous” describes a coating wherein the dots are completely distinct from one another with no overlapping of the dots, and also a coating wherein some overlapping of the dots takes place. As used herein, the term “interengaged” describes the relationship of the dots on the film surface such that the exposed surface area of the film is minimized.

See column 4, line 59 through column 5, line 10.

The barrier performance, or degree of water protection, of the coated water-sensitive film depends on a number of factors including, but not limited to, the dot pattern, dot size, the distance between dots, the dot thickness, the pore geometry, the

water sensitivity of the film material, and the hydrophobic polymer material. Capillary forces on the surface of the coated film prohibit fluid, such as water, from entering the spaces between dots. The magnitude of capillary forces depends on the factors above and additionally the fluid surface tension, fluid pressure and fluid contact angle on the hydrophobic coating material. . . .

See column 6, lines 24-34 of Kerins.

Kerins no where discloses or suggests that the entire surface of the prior art hydrophobic article is covered with hydrophobic material. In fact, Kerins makes it expressly clear that there are exposed areas of the prior art substrate between dots of the Kerins hydrophobic material. Kerins further discloses that there are “spaces between dots” of the Kerins hydrophobic material surface.

Throughout the Kerins patent the prior art surface is described as one that is discontinuous. Kerins is consistently clear that the prior art hydrophobic surface is one that does not entirely cover the prior art substrate but instead leaves spaces of uncovered substrate between areas of substrate that is coated with hydrophobic material.

Kerins uses a discontinuous hydrophobic surface such that the hydrophobic article may be decomposed or broken down in water. Applicants submit that it would make no sense to modify the Kerins article to completely coat the Kerins article with a hydrophobic material because doing so would provide a surface that is not amenable to decomposing or breaking down in water.

Applicants further submit that the presently claimed invention is patentable over the combination of Kerins and Keller at least for the reason that the cited prior art does not disclose all the present claim limitations and further for the reason that modifying Kerins to replace a discontinuous hydrophobic surface with a hydrophobic surface that covers the entire surface of the Kerins article is contrary to the purpose and function of the Kerins article. In essence, modifying Kerins in the manner of the presently claimed invention would render

Kerins inoperable. Applicants draw the Office's attention to M.P.E.P. § 2143.01(V) which states in part:

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.

Here, modification of Kerins in the manner of the presently claimed invention would render Kerins unsatisfactory as a process for making a water-sensitive product.

Thus, the rejection of the presently claimed invention which requires forming a coated textile sheet entirely covered with a self-cleaning (e.g., hydrophobic) surface should be withdrawn.

Applicants request withdrawal of the rejection and the allowance of all now-pending claims.

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